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ABSTRACT

This report presents findings of the Baccalaureate Follow-Up Survey of the class of 1997 alumni (n=10,672) one year after graduation from any of Illinois' 12 public universities, as well as a survey of 1,180 seniors (class of 1999), concerning post-graduation plans and satisfaction with their undergraduate education. Almost two-thirds of the alumni were nontraditional students (older than 22 at graduation) and half the seniors were older than 22 years. Highlights of the survey of graduates indicated that 78.2 percent of graduates were employed full-time, 9.5 percent were employed part-time, and only 3.9 percent were still seeking work a year after graduation; about a third of graduates were enrolled either full- or part-time in further education; almost 80 percent of those employed full-time had jobs related to their majors; about 75 percent of respondents had found full-time jobs within three months of graduation; and the median salary for full-time employed respondents was $30,000. A comparison of responses of graduates and class of 1999 seniors noted that one-third of seniors planned to continue further education immediately, while one-third of graduates actually had enrolled in additional education; 95 percent of seniors and 93 percent of alumni rated their undergraduate experience positively; and both seniors and alumni rated their professors highly. Methodology information is appended. (DB)

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ED 431 348

Item #13
June 8, 1999

STATE OF ILLINOIS
BOARD OF HIGHER EDUCATION

PUBLIC UNIVERSITY FOLLOW-UP STUDIES: BACCALAUREATE CLASS OF 1997 AND THE SENIOR CLASS OF 1999

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Executive Summary

This report provides results of the Baccalaureate Follow-Up Survey of the Class of 1997, one year after graduation. The survey of alumni of Illinois' 12 public universities is designed to provide information on the extent to which graduates find jobs, continue with further education, and are satisfied with their undergraduate education. These surveys are conducted every year on a "rolling cycle" that surveys alumni one, five, and nine years after graduation.

Also, in fall 1998, seniors of the Class of 1999 responded to two sections of questions that duplicate those in the Baccalaureate Follow-Up Survey. Responding to a telephone survey, 1,180 seniors answered the same questions about future plans for further education and about their satisfaction with the undergraduate experience that alumni of the Class of 1997 answered.

A substantial percentage of the respondents in both surveys were non-traditional students. Approximately half of the 1,180 seniors of the Class of 1999 who responded to the survey were 22 years. An additional 24% were 23 to 25 years old, 10% were 25 to 29 years old, and 15% were 30 and older. Baccalaureate Follow-Up Survey respondents of the Class of 1997 had somewhat higher percentages of non-traditional students. A third of the Class of 1997 respondents were age 22 when they graduated. More than a third (37%) were between the ages of 23 and 25, 10% were between 26 and 29 years old, and 20% were 30 and older.

The majority of this report describes results and implications of the Baccalaureate Follow-Up Survey of the Class of 1997. In two sections of this report, however, the responses of the seniors of the Class of 1999 provide an interesting comparison with responses of alumni of the Class of 1997 to questions about further enrollment in higher education and about student satisfaction with the undergraduate experience.

Highlights of the Baccalaureate Follow-Up Survey of the Class of 1997 include:

- The vast majority of respondents of the Class of 1997 either found jobs, or continued with further education, or both.
- 78.2% of respondents found full-time employment and 9.5% found part-time employment. Only 3.9% were still looking for work a year after graduation. Of this 3.9%, some were enrolled in further education.
- About a third of the Class of 1997 were enrolled either full-time or part-time, furthering their education.

IE 032 111

- Only 2.8% of the alumni of the Class of 1997 were neither enrolled nor employed one year after graduation. Of this 2.8%, only 2.1% reported that they were still looking for work. This is less than half of the 1998 Illinois unemployment rate of 4.5%.

- Almost four of five full-time employed respondents found jobs related to their majors.

- Three-fourths of respondents who found full-time jobs did so within 3 months of graduation. Another 11.5% of those employed full-time found jobs between 3 and 6 months of graduation. Graduates who majored in communication, education, and the liberal arts and sciences (humanities, math and science, social sciences, fine arts, and interdisciplinary studies) tended to take somewhat longer than average to find full-time jobs.

- The median salary for full-time employed respondents was $30,000. The national discrepancy between salaries for men and women was mirrored in this study. The median for men was $34,500. For women, it was $27,500. Salaries were higher for graduates who found jobs in the Chicago area or out of state.

Highlights of the comparison of responses between graduates of the Class of 1997, one year after graduation, and current seniors of the Class of 1999, include:

- One-third of the seniors of the Class of 1999 said they intended to continue immediately with further education after earning their bachelor's degrees. One-third of the respondents of the Class of 1997, one year after graduation, actually had enrolled in additional education. These results suggest that those students who intend to continue their education right away follow through on their intentions.

- 95% of seniors and 93% of alumni one year after graduation rated their undergraduate experience positively. This difference is not statistically significant.

- Overall, both seniors and alumni rated their professors highly on being accessible, having high expectations, emphasizing the importance of study and planning for academic success, and providing timely feedback.

- Results also suggest that both seniors and alumni felt that they would like more frequent opportunities to engage actively in their own learning. Overall, students were not as satisfied with the frequency with which they were encouraged to challenge ideas and to work cooperatively with other students.

Item #13
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This report presents the results of the Baccalaureate Follow-Up Survey of the Class of 1997, one year after graduation. Selected results from the Fall 1998 telephone survey of public university seniors are also included in two sections of this report. The results of these two studies support several of the Board's initiatives. In September 1990, the Board of Higher Education updated its policy statements for undergraduate education and recommended the development and implementation of a public university Baccalaureate Follow-Up Survey. In February 1999 the Board adopted six broad goals for higher education, as described in *The Illinois Commitment: Partnerships, Opportunities, and Excellence.* One of these goals asks Illinois colleges and universities to hold students to even higher expectations for learning and to assess whether these expectations are met. The results of both of the studies described in this report measure success in achieving these expectations.

The purposes of the Baccalaureate Follow-Up Survey are to contribute to the statewide analysis of trends for program reviews, to provide statewide data so that each public university can compare the responses of its own graduates to statewide results, and to assist students in program selection and career planning. The survey is designed to answer four questions: 1) Do baccalaureate degree graduates find jobs? 2) To what extent do they pursue additional education? 3) Do they find work in areas related to their baccalaureate majors? and 4) How satisfied are they with both the university and their undergraduate majors?

In this year's Baccalaureate Follow-Up Survey, 10,672 graduates of the Class of 1997, responded to the written survey approximately one year after they graduated from one of Illinois' 12 public universities. The adjusted response rate is 42% and results show proportional representation of the graduates of the Class of 1997 by gender and by major, compared to all bachelor's degrees conferred for the 1996-97 academic year (*IBHE Data Book*, Revised October 1998). Results by race/ethnicity, however, under-represent African-American students and over-represent white students. Therefore, analyses are not valid by race/ethnicity. (See Appendix A for each public university's survey response rate and an analysis of the aggregate characteristics of survey respondents.)

This year's results also mark the first year since the survey instrument was revised after the end of a six year pilot period. Baccalaureate Follow-Up Work Group members made two important revisions to the survey. First, the occupational categories were changed so that they align with the federal Standard Occupational Classification (SOC) scheme, allowing for both state and institutional data to be compared to federal data and ensuring a greater degree of accuracy in Illinois' data. Second, the number of questions asking students how satisfied they were with their undergraduate experience was expanded from two questions on the former survey to nine questions on the revised survey. The members of the Baccalaureate Follow-Up Work Group developed 7 new questions based upon the work of Arthur Chickering, a scholar in the field of student development. Chickering's "7 Principles for Good Practice in Undergraduate Education" (Chickering and

Gamson, 1987) are the theoretical basis for the new questions. These new questions ask students how accessible their professors were, whether they received timely feedback on their work, and whether they were encouraged to challenge ideas as part of their undergraduate experience. Six of these 7 questions were also asked of 1,180 public university seniors of the Class of 1999, allowing the answers of current seniors to be compared to students who graduated in 1997.

Do Graduates Find Jobs and Pursue Further Education?

> *"Maybe . . . by having been taught ways to learn instead of specific things to learn, I've found that, yes, I'm able to pick things up pretty darn quickly. You shove me into an environment and it's not a problem."*
>
> --Public University Senior, Class of 1999

The vast majority of the respondents of the Class of 1997 either found jobs or continued with further education, or both. Only 3.9% of graduates reported that they were still seeking work a year after graduation. Tables 1 and 2 below show the proportion of students employed and enrolled in further education. Some graduates, however, were enrolled in college either part-time or full-time, even though they were looking for work. As shown in Table 3, only 2.8% of respondents were neither employed nor enrolled in college. Of this 2.8%, even fewer--only 2.1%--were seeking work. This 2.1% is less than half of Illinois' already low 1998 unemployment rate of 4.5%, the year during which students were surveyed. This is consistent with the latest available data from the National Center for Education Statistics, which reported that in 1996 only 2.2% of persons 25 years of age and older who had earned bachelor's degrees were unemployed (NCES, 1997, p. 417).

Table 1: Workforce Participation

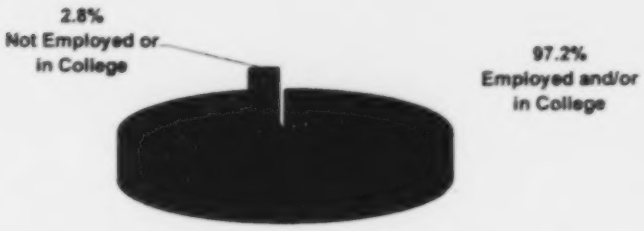
In Workforce	Not in Workforce	Employment			
		Full-Time	Part-Time	Seeking Work	Total
87.6%	12.4%	78.2%	9.5%	3.9%	n = 10,577

Table 2: Participation in Further Education

In College	Not in College	Enrollment		
		Full-Time	Part-Time	Total
32.3%	67.7%	18.7%	13.6%	n = 3,420

As the pie chart below shows, only 2.8% of the respondents of the Class of 1997 were neither participating in the workforce nor enrolled in further education.

Chart 1: Participation in the Workforce and Further Higher Education



A closer look at the results for each of the 16 broad program majors reveals some differences, varying from a low of 1% of computer science majors either not in the workforce or not in college to a high of 4.6% for fine arts majors. Self-employed respondents were included among those employed. In reading the table below, it is important to look at the *employment* percentages in the context of the *enrollment* percentages. In health, science/math, and the social sciences, higher percentages of respondents were unemployed and not seeking work because they were enrolled full-time in graduate degree programs. In terms of unemployment, the column that is most important is the last column of the table, showing those who were neither employed nor enrolled a year after graduating.

Table 3: Employment and Enrollment Patterns
Class of 1997, One Year After Graduation

MAJOR	EMPLOYMENT				ENROLLMENT			**Not employed and not enrolled
	Full-time	Part-time	Unemployed and seeking work	Unemployed, and NOT seeking work	Full-time	Part-time	Total	
Agriculture	77.6%	9.4%	2.5%	10.5%	22.5%	10.9%	33.3%	1.1%
Accounting	93.9%	2.0%	1.8%	2.2%	4.3%	8.1%	12.3%	1.6%
Business	89.9%	4.4%	2.6%	3.1%	6.6%	9.0%	15.6%	2.5%
Communication	81.8%	7.9%	5.6%	4.6%	14.8%	6.3%	21.1%	2.7%
Computer Sci	89.4%	3.0%	2.0%	5.6%	8.6%	23.2%	31.8%	1.0%
Education	83.2%	9.9%	4.8%	2.0%	9.1%	17.8%	26.9%	4.0%
Engineering	87.3%	4.0%	3.4%	5.4%	16.9%	15.4%	32.3%	1.2%
Enginrg Tech	94.1%	2.0%	2.8%	1.2%	6.6%	17.2%	23.8%	1.6%
Nursing	81.7%	15.5%	1.6%	1.2%	2.4%	8.3%	10.7%	2.4%
Health	65.5%	9.4%	5.8%	19.3%	31.1%	14.4%	45.5%	2.2%
Lib Arts-Hums	77.4%	11.2%	4.4%	7.0%	16.8%	19.0%	35.8%	3.6%
Sci/Math	57.6%	10.9%	3.5%	28.0%	42.4%	11.6%	54.0%	2.5%
Soc Sci	66.6%	13.3%	5.0%	15.1%	32.9%	13.4%	46.3%	3.0%
Fine Arts	69.4%	17.9%	5.9%	6.8%	16.1%	8.9%	24.9%	4.6%
Interdiscip	79.5%	16.4%	1.4%	2.7%	15.3%	23.6%	38.9%	0.0%
Other	76.7%	11.7%	3.4%	8.2%	22.7%	9.9%	32.6%	2.6%
All Majors	78.2%	9.5%	3.9%	8.5%	18.7%	13.6%	32.3%	2.8%

* These rows may not sum to 100%, because some students both worked and enrolled in college.
**This column includes all those unemployed--both seeking and NOT seeking work--who were also not enrolled in further education. The percent unemployed who were seeking work and not enrolled in further education is 2.1%.

27
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In looking at graduates' participation in the workforce and in further education, it is not only important to be aware of non-participation rates, but also to understand "dual participation rates," that is, graduates who both work and continue with further education. Five percent of respondents of the Class of 1997 (n = 535 persons) were both working full-time and going to school full-time. Another 11.9% (n = 1,250) were working full-time and going to school part-time. And an additional 4.4% (n = 438) were working part-time and going to school full-time. This means that 21% of respondents of the Class of 1997 were participating *both* in the workforce and in further education.

When looking at factors that influence time-to-degree, it is important to consider students who are attempting to handle education and work at the same time. Do students who work full-time and go to school full-time also tend to "stop out" more frequently, thus lengthening their time-to-degree? Or do they tend to stop out only for short periods of time and ultimately finish their graduate degrees faster? Are there any optimal ways to juggle both work and education?

Do Graduates Who Intend to Pursue Further Education Really Do So?

In this section, results of the telephone survey of 1,180 seniors of the Class of 1999 are compared to results from the Baccalaureate Follow-Up Survey of the Class of 1997. One-third (33%) of the Class of 1999 seniors said that they intended to enroll immediately in further higher education after they finished their bachelor's degrees. This percentage is remarkably consistent with results for the Class of 1997, one year after graduation. Almost one-third (32%) of the respondents in this cohort actually did so. This has implications for higher education planning and for capacity concerns. While these two surveys canvassed different cohorts of students, the similar results imply that by the beginning of their senior year, students who intend to continue their education right after finishing their bachelor's degrees will probably do so.

Student plans to continue their education a little later, however, may be over-estimated. An additional 46% of the current senior Class of 1999 said they intended to continue further education after a few years. Adding the 46% to the 33% who intend to continue immediately, 79% of the Class of 1999 plan to pursue higher education within a few years. Results from earlier Baccalaureate Follow-Up Surveys five- and nine-years after graduation show it is more likely that almost half (not 79%) actually will continue education (*Public University Baccalaureate Follow-Up Surveys of the 1984, 1988, and 1991 Graduates*, September 6, 1995). Not surprisingly, greater proportions of graduates in liberal arts disciplines (humanities, math and science, and the social sciences) tended to continue immediately with further education. Greater proportions of respondents in health and interdisciplinary studies programs (which includes such liberal arts programs as area, ethnic and cultural studies) also continued immediately.

Of those in the Class of 1997 who continued their education, most (54%) enrolled in master's degree programs. Almost twice as many of these respondents were pursuing academic master's degrees as were enrolled in professional master's degree programs, such as the M.B.A., M.S.W., M.F.A., and M.P.A. degrees. About one quarter (23%) were simply taking additional classes and not enrolled in a degree program. Smaller percentages were enrolled in medical programs leading to the M.D. or D.O. degrees (3.2%); health professional programs such as dentistry, pharmacy, and optometry (3.8%); law programs (4.8%); doctoral programs (2.6%); theology/divinity programs (.6%); and "other" degrees (3.4%). Small percentages were also enrolled in second bachelor's degree or associate degree programs (3.3% and 1%, respectively).

Do Graduates Find Jobs Related to Their Majors?

One of the ways colleges and universities are often judged is the extent to which their graduates are able to use their knowledge and skills in the workforce. The results of the survey of the Class of 1997 revealed that almost four of five graduates found jobs related to their majors. Only 7.6% reported that they had *no choice* in accepting jobs not related to their majors.

As might be expected, over 90% of graduates in professional fields such as nursing, accounting, computer science, and engineering reported that they found jobs that were either closely related or related to their majors. Higher proportions of majors in the liberal arts and sciences and in the field of communication reported that they had no choice in accepting jobs not related to their majors. Table 4 shows a breakdown of the relevance between job and major.

Table 4: Relationship between Job and Major for Full-Time Employed
Class of 1997, One Year after Graduation

Major	Closely Related	Related	TOTAL	Not Related by Choice	Not Related, NOT by Choice	Just Unrelated	*n*
Nursing	77.7%	20.4%	98.1%	0.5%	1.5%		206
Computer Science	77.8%	17.6%	95.5%	2.8%	1.7%		176
Accounting	74.9%	16.9%	91.9%	5.7%	2.1%	0.2%	419
Engineering	58.3%	32.2%	90.5%	6.9%	2.5%	0.1%	726
Engineering Tech	45.6%	39.7%	85.4%	9.6%	5.0%		239
Business	46.7%	38.5%	85.1%	8.9%	5.9%	0.1%	983
Education	65.6%	18.6%	84.2%	9.6%	6.0%	0.2%	1,302
Health	49.8%	32.5%	82.3%	10.0%	7.4%	0.4%	271
Agriculture	53.0%	26.5%	79.5%	14.0%	6.5%		215
Other	51.8%	27.1%	79.0%	13.7%	6.8%	0.5%	818
Communication	49.2%	28.0%	77.2%	13.0%	8.5%	1.2%	246
Interdisciplinary	37.9%	36.2%	74.1%	12.1%	12.1%	1.7%	58
Science/Math	40.5%	32.8%	73.3%	16.5%	9.7%	0.4%	454
Fine Arts	43.2%	27.7%	70.9%	16.0%	13.1%		213
Lib Arts-Hums	25.4%	34.2%	59.6%	26.4%	12.5%	1.5%	882
Social Science	25.4%	31.6%	57.0%	27.5%	14.6%	1.0%	941
TOTAL	**49.2%**	**28.9%**	78.1%	**13.8%**	**7.6%**	**0.5%**	**8,149**

In addition to asking graduates how closely they thought their jobs were related to their college majors, graduates were also asked to indicate the occupational fields in which they are working. For the most part, graduates in the different majors found jobs where they would be expected to find jobs. For example, business majors with full-time jobs were predominately employed in management (21.3%), business and financial operations (33.9%), computer and mathematical fields (18.5%), sales (11.8), and office and administration (7.6). Thus, 93% of all full-time employed business majors were employed in fields related to their major.

For those in the liberal arts and sciences, the occupational match is sometimes less clear, and graduates have broader training that can fit a variety of occupations. Humanities majors were the most varied in where they found full-time jobs, and at least some were employed in every one of the 22 broad occupational categories except farming. The greatest proportion of humanities majors (almost 60%) were almost evenly divided among 5 different occupational categories: management (13.7%) , business and financial operations (11%), education, training, and libraries

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(13.7%), sales (10.4%), and office and administration (11%). Table B-1 in Appendix B provides a breakdown of where respondents of the Class of 1997 in the different majors found full-time jobs.

How Long Did It Take Graduates to Find Jobs?

Overall, the job market was good for graduates of the Class of 1997. Almost half of all graduates either found a job by the time they graduated or kept the same job after graduating that they had while they were enrolled. Within 3 months of graduation, a little more than three-fourths of the respondents had found either full- or part-time jobs. A little more than one in 10 respondents took between 3 and 6 months to find a job and only 6% took between 6 and 9 months. (Results for graduates with full-time jobs were almost exactly the same.)

There was some variation in these results by major, especially in fields like education, which tends to hire teachers mainly during certain times of the year. Credentialing and licensing can influence the timing of respondents' first job after the bachelor's degree. In general, majors in professional fields like accounting, computer science, and engineering found jobs more quickly. Majors in the liberal arts fields of science/math, social science, and the fine arts, as well as communication and education majors, took somewhat longer to find jobs than the average for all majors.

Table 5 below shows how long it took respondents within the different majors to find full-time jobs.

Table 5: Timing of First Job, by Major, for Full-Time Employed

Major	Held the same job while enrolled	By graduation	Less than 1 month	Between 1-3 months	TOTAL (Within 3 months)	Between 3-6 months	Between 6-9 months	After 9 months	After graduation, no time reported	*n*
Computer Sci.	14.8%	64.8%	5.1%	8.5%	93.2%	4.5%	1.1%	0.6%	0.6%	*176*
Accounting	11.0%	62.2%	7.9%	7.7%	88.8%	5.5%	3.6%	1.7%	0.5%	*418*
Engineering	5.5%	64.7%	8.0%	10.5%	88.7%	5.8%	2.6%	2.6%	0.3%	*725*
Engineg. Tech	35.7%	26.0%	10.9%	10.9%	83.5%	5.9%	6.7%	3.4%	0.4%	*238*
Business	15.6%	44.4%	7.8%	15.5%	83.3%	8.8%	4.3%	2.1%	1.4%	*981*
Interdisciplinary	29.3%	39.7%	3.4%	10.3%	82.7%	5.2%	8.6%	3.4%		*58*
Liberal Arts-Hums	37.3%	16.2%	8.8%	16.4%	78.7%	10.8%	5.1%	3.8%	1.7%	*879*
Nursing	22.0%	23.9%	6.8%	25.9%	78.6%	14.6%	4.9%	0.5%	1.5%	*205*
Health	21.5%	24.4%	10.0%	20.7%	76.6%	11.9%	5.9%	4.4%	1.1%	*270*
Agriculture	12.1%	41.1%	11.7%	9.8%	74.8%	10.3%	6.5%	7.0%	1.4%	*214*
Communication	13.1%	27.0%	8.6%	23.0%	71.7%	9.8%	8.6%	7.8%	2.0%	*244*
Other	13.3%	25.6%	11.8%	20.5%	71.2%	13.5%	7.2%	6.8%	1.4%	*814*
Education	17.3%	15.3%	12.2%	26.0%	70.8%	13.7%	9.2%	4.6%	1.8%	*1,298*
Social Sciences	10.9%	22.1%	11.2%	24.4%	68.6%	16.5%	6.0%	6.7%	2.2%	*936*
Science/Math	11.7%	26.2%	10.8%	19.8%	68.5%	17.0%	7.7%	4.4%	2.4%	*454*
Fine Arts	13.7%	15.1%	13.2%	25.0%	67.0%	16.5%	9.9%	6.1%	0.5%	*212*
TOTAL	**16.9%**	**31.3%**	**9.9%**	**18.6%**	**76.7%**	**11.5%**	**6.1%**	**4.3%**	**1.4%**	*8,122*

There is a caveat to the speed at which graduates find jobs after earning their bachelor's degrees. The first column of Table 5 contains a disproportionate number of older, non-traditional students. Many older graduates reported that they held the same jobs "while enrolled," which means that they did not change jobs once they completed their degrees. Chart 2 below shows the

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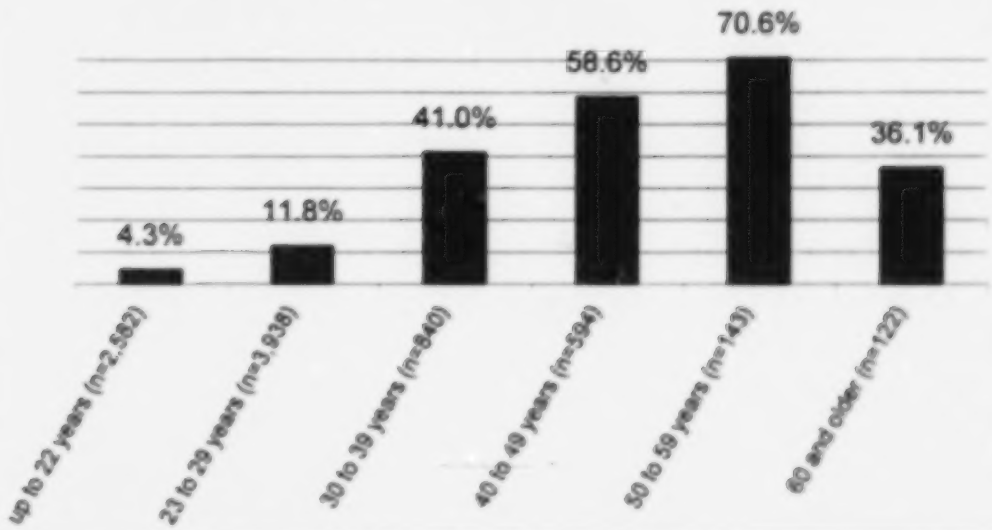
percentage of full-time employed respondents who were in their 30's, 40's, and 50's and did not change jobs once they graduated.

Chart 2: Percentage Holding Same Job While Enrolled and After Earning Bachelor's Degree, by Age Groups



What Do Graduates Right Out of College Earn--And Do Women Earn as Much as Men?

There is no truly comparable national salary data on recent baccalaureate graduates with which to compare the results of the Class of 1997 from the Baccalaureate Follow-Up Survey. The best is to look at data from the U.S. Census Bureau's most recent Current Population Report which shows that full-time employed men between the ages of 25 and 34 with bachelor's degrees earned a *mean* salary of $45,292 nationally. For women, the mean was $35,348. The salaries reported by respondents to the Baccalaureate Follow-Up Survey are lower, in part because they are based upon averages that are computed using *medians*, which are less sensitive to extremely high or low salaries. Also, Illinois salaries in general are lower than salaries in other parts of the country, as supported by the fact that salaries tended to be higher for those graduates who found full-time jobs outside of Illinois. Like urban areas everywhere, salaries in the Chicago area are higher than salaries in the rest of Illinois. Higher out-of-state and Chicago area salaries, however, must be set in the context of the overall higher cost of living.

Also consistent with national data and with results from every year that this survey has been conducted, men earn more than women in most fields. As in previous Baccalaureate Follow-Up Surveys, Table 6 shows that in certain professional fields like accounting, engineering, and nursing, women and men earn equivalent salaries. In other professional fields, like education, however, median salaries are definitely not equal. National data for 1997 show that women earned 74 cents to every dollar men earned (U.S. Bureau of the Census, 1998, p. x).

Table 6: Median Salary by Major for Full-Time Employed
Class of 1997, One Year after Graduation

Major	Median Income by Gender			Median Income by Region of Employer		
	All	Males	Females	All Illinois	Out-of-State	Chicago Area Only
Agriculture	$27,500	$28,500	$27,500	$27,500	$27,500	$27,500
Accounting	$35,000	$35,500	$35,000	$35,500	$32,750	$37,500
Business	$33,300	$35,050	$32,500	$33,000	$35,100	$35,000
Communication	$26,000	$25,700	$26,300	$25,200	$27,500	$27,500
Computer Science	$46,800	$47,500	$43,000	$45,500	$47,500	$47,500
Education	$26,000	$31,000	$25,000	$24,800	$30,000	$26,500
Engineering	$42,500	$42,500	$42,500	$42,500	$42,500	$42,500
Engineering Tech	$38,000	$38,400	$32,000	$36,000	$40,000	$40,000
Nursing	$32,500	$32,500	$32,500	$32,500	$32,500	$33,500
Health	$31,000	$35,500	$29,100	$31,400	$32,000	$32,500
Liberal Arts- Hums	$28,700	$35,000	$27,000	$28,500	$30,000	$30,000
Science/Math	$27,500	$29,100	$27,500	$28,000	$24,500	$30,000
Social Sciences	$25,100	$27,500	$24,000	$25,700	$26,000	$27,500
Fine Arts	$25,000	$27,300	$24,300	$25,000	$27,500	$27,500
Interdisciplinary	$36,000	*	*	*	*	*
Other	$26,000	$29,000	$24,000	$26,000	$25,300	$27,500
ALL MAJORS	**$30,000**	**$34,500**	**$27,500**			

* Cell sizes are too small to report.

Part, but not all, of the explanation lies in the type of jobs men and women find within their fields. Of 889 female education majors with full-time jobs, for example, 80% reported that they found jobs in education, training, and library occupations. Of 367 male education majors with full-time jobs, only 38% reported that they found jobs in education, training, and library occupations. Approximately 20% were in the traditionally higher-paying fields of management, business and finance, and computer and mathematics. Another 20% were in the military. When median salaries are compared for male and female education majors who found jobs within what is traditionally considered "their field" (e.g., education, training, and libraries), median salaries, although still not equal, were more similar for men and women: $26,500 for men ($n$ = 135) and $24,600 for women ($n$ = 656). These results suggest areas for further analysis to assess the extent to which female graduates of baccalaureate programs in Illinois experience a lack of parity in pay in the workforce.

How Satisfied Are Graduates and Current Seniors with Their Undergraduate Experience?

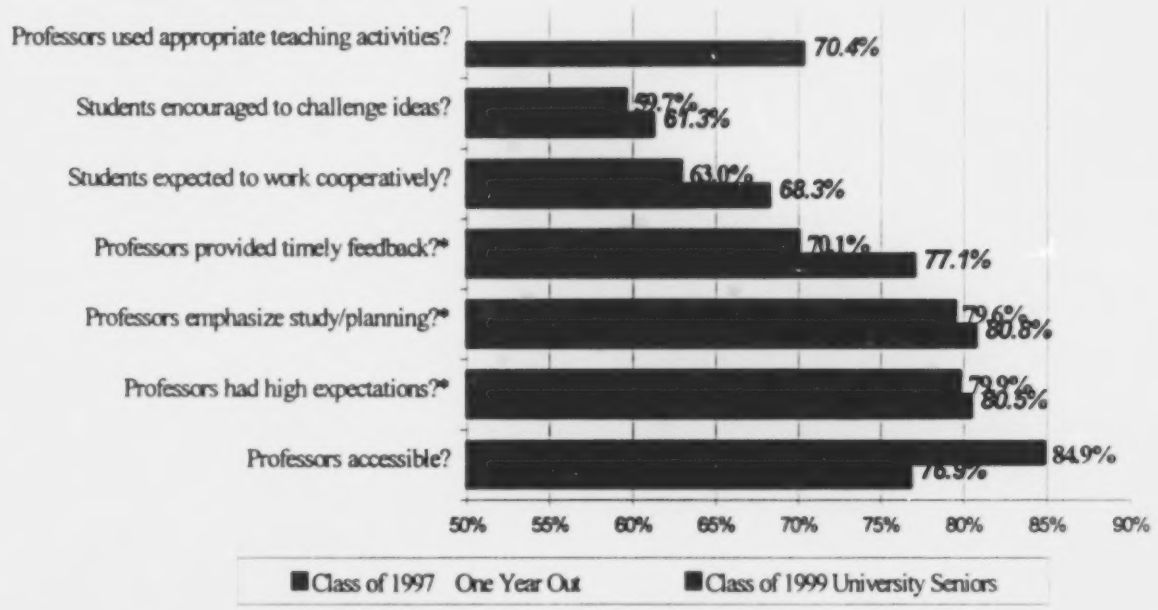
In this section, results of the telephone survey of seniors of the Class of 1999 are again compared to results for the Baccalaureate Follow-Up Survey of the Class of 1997, one year after graduation. Nearly equally high percentages of seniors and one-year alumni gave positive ratings to their universities. Of this year's Class of 1999, 94% of the seniors were either "very satisfied" or "satisfied." Alumni were asked a different question, but results were also positive. Ninety-three percent reported that their attitude toward their universities were "strongly positive," "positive," or "somewhat positive."

One of the ways in which the Baccalaureate Follow-Up Survey was revised after a six-year pilot period was to add a number of questions to better assess students' satisfaction with their undergraduate experience. The Baccalaureate Follow-Up Work Group developed 7 additional questions based upon the work of Arthur Chickering, a scholar in the field of student development. During fall 1998, 1,180 public university seniors were surveyed by telephone as

part of a series of surveys that were conducted to inform *The Illinois Commitment*. Seniors were asked these same 7 questions so that their responses could be compared to the responses of alumni in the Baccalaureate Follow-Up Survey.

While overall indicators of student satisfaction with the undergraduate experience are important, more specific information about various aspects of student learning can be particularly helpful to faculty and administrators. The bar chart below shows the percentage of seniors and alumni who responded "very often" or "often" to questions based upon the 7 principles for effective undergraduate teaching and learning, described by Arthur Chickering.

Chart 3: Student Satisfaction with Learning Aspects of the Undergraduate Experience



*Graduates of the University of Illinois campuses at Urbana-Champaign and Chicago did not respond to these questions. Valid responses from the Class of 1997 ranged between 6,687 and 10,555. Valid responses from the senior Class of 1999 ranged between 1,168 and 1,178.

For current public university seniors, these questions were asked in the context of their entire collegiate experience. For alumni, these questions were restricted to their experiences within their major degree program area. Nevertheless, responses are quite similar across 6 of the 7 items. (Public university seniors were not specifically asked the question on "appropriate teaching activities.")

While a majority of respondents in both groups rated each item favorably, responses suggest that several areas could use improvement. As the chart shows, about 40% of both current seniors and recent alumni did not report that they were often encouraged to challenge ideas. About a third in each group indicated that they were not often expected to work cooperatively with other students on projects, homework, and assignments. These results are important when put in the perspective of what future employers expect of students. In the survey of employers conducted as part of *The Illinois Commitment*, employers rated "teamwork and problem solving" as the second most important training and education need for employees in their companies now

and over the next 5 years. Seventy-four percent of 1,000 employers rated this need "very important."

Conclusions and Implications

In determining what the results of these studies mean, it is important to revisit the key questions:

1) Do graduates get jobs?
2) Do they get jobs related to their majors?
3) Do they continue with further education?
4) How satisfied are they with their undergraduate experience?

In response to the first question, the studies show that higher education does a good job preparing graduates to get jobs. Very few bachelor's degree recipients of the Class of 1997 who wanted a job were unable to find one. For all the good news, however, graduates in certain majors took longer to find jobs. Between 4% and 6% of respondents who majored in communication, education, health, humanities, the social sciences, and fine arts were still unemployed and looking for work a year after they graduated. While these percentages are small, it does suggest that students should be aware of "hiring cycles" in their fields while in college and seek the help of campus employment offices--sooner rather than later.

Concerning the second question, the Baccalaureate Follow-Up Survey results also show that graduates get jobs related to their majors. In fields in which students prepare for a specific profession, such as nursing, computer science, accounting, and engineering, 90% or more of the respondents were employed in the occupations for which they were trained. In other broad majors which encompass a number of specialties, such as business, health, and fine arts, respondents of the Class of 1997 found jobs in a greater variety of occupations, but the majority were clearly employed "within their fields." Only within the liberal arts and sciences, which are intended to provide broadly educated graduates, do graduates report a considerable range of occupations. Yet almost all graduates who want a job can find one.

The third major question the Baccalaureate Follow-Up Survey addresses is whether graduates pursue further education. A third of the respondents of the Class of 1997 did so immediately, and a third of the seniors of the Class of 1999 said that they, too, intended to continue immediately after graduation. These results are corroborated in an earlier Baccalaureate Follow-Up Survey of the Class of 1994 in which 30% of respondents had enrolled in further education within a year of graduating. The implication, then, is that higher education in Illinois needs to ensure that it has the capacity to accommodate one-third of all baccalaureate degree graduates in a given year who will likely continue immediately with further education. About half of all baccalaureate degree graduates will seek further education within several years of graduation, as indicated by previous Baccalaureate Follow-Up Surveys of graduates five and nine years after graduation.

Regarding satisfaction with their undergraduate experience, students are overwhelmingly positive. Ninety-five percent of seniors who responded to the telephone survey of the Class of 1999 and 93% of alumni who responded to the Baccalaureate Follow-Up Survey of the Class of 1997 reported that they felt positively about their undergraduate experiences. Students expressed highest satisfaction with the more evaluative components of the learning experience, such as professors' emphasis on the importance of studying and planning for academic success, faculty expectations for high quality work, accessibility of professors outside the classroom, and timely

feedback on their performance (although this latter item was not rated as highly by current seniors as by alumni). A fairly high percentage (70%) of alumni of the Class of 1997 also reported that their professors used appropriate teaching activities to help them learn either "very often" or "often." (This specific question was not asked of seniors of the Class of 1999.)

But student responses in both surveys also indicated that there is room for improvement in the more participatory functions of classroom life. Students appeared to want to participate more actively in their own learning. About two-fifths of students in both of these surveys reported that they "sometimes," "infrequently," or "never" were encouraged to challenge their own ideas, the ideas of other students, and the ideas presented in readings and other course materials. And roughly a third in each survey responded similarly to the question asking whether they were expected to work cooperatively with other students on projects, homework, and assignments. A substantial proportion of students appeared to want more active involvement in their own learning, a large enough proportion to indicate a possible area for improvement. Illustrative of this finding is a comment from a public university senior in a focus group who made the distinction between "learning instead of getting a grade . . . [be]cause anyone can get grades." Student responses provide support for Arthur Chickering's assertion that students "must talk about what they are learning, write about it, relate it to past experiences, apply it to their daily lives. They must make what they learn part of themselves" (Chickering and Gamson, 1987, p. 3).

Next Steps

In a report such as this one, it is not possible to mention all the implications and conclusions arising from these rich sources of information. The tables in this report, as well as some additional tables, will be posted on the IBHE web site (www.ibhe.state.il.us). Institutional researchers at each public university provide their own analyses of the data, often by program area and by the characteristics of their particular student populations. For example, cross-tabulating the data by age groups can shed light on whether results are similar for traditional and for non-traditional students on campus.

Results from the Baccalaureate Follow-Up Survey can be included in a public university's annual "Results Report" to document the ways in which the institution is being responsive to the needs of students and employers and meeting the goals of *The Illinois Commitment*. For example, two goals of *The Illinois Commitment* address higher education's contribution to Illinois' economic growth and its commitment to increase access and diversity. Three specific actions cited in the February 1999 report on *The Illinois Commitment* are 1) adjusting the capacity of occupational and professional programs to keep the supply of graduates in balance with employment demand, 2) annually increasing the number of college and university students who earn a certificate or a degree and who do so in a timely manner, and 3) annually increasing the placement of graduates in careers appropriate to their education and training. Information from the Baccalaureate Follow-Up Survey can be used to document these results. The newly expanded section of the survey on student satisfaction, based upon the 7 principles for effective teaching and learning developed by Arthur Chickering, is also particularly relevant to Goal 5 of *The Illinois Commitment*, which calls for colleges and universities to hold students to even higher expectations for learning and to be accountable for the quality of academic programs. The Baccalaureate Follow-Up Survey can help provide systematic evidence of the extent to which higher education is achieving its purposes and accomplishing its goals.

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Appendix A: Methodology

The Baccalaureate Follow-Up Survey is mailed to public university graduates on a "rolling cycle" one, five, and nine years after graduation. In other words, every three years graduates who have been out of college for one year receive a survey. The survey asks a common core of 18 questions about employment, further enrollment in higher education, and satisfaction with the undergraduate experience. A Work Group of representatives from each public university monitors the progress of the survey and meets once or twice a year to compare notes on response rates and to discuss issues and results.

Only graduates with foreign addresses are excluded from each year's survey. Graduates are identified by calendar year, not fiscal year. Universities have flexibility in the methods they use to disseminate and collect the surveys. To maximize response rates, institutions normally send at least two mailings, the survey itself and a follow-up postcard or a second copy of the survey approximately one month later. Some universities send three mailings. Several also send "pre-survey" postcards to alert graduates that the survey will be mailed soon to increase response rates.

Table A-1 below shows response rates for each institution for the survey of the Class of 1997, one year after graduation.

Table A-1: Response Rates by Institution, Baccalaureate Follow-Up Survey Class of 1997, One Year After Graduation

University	Number of Graduates	Number of Deliverable Surveys	Number of Students Responding	Gross Response Rate	Adjusted Response Rate
Chicago State	831	814	204	25%	25%
Eastern Illinois	2,077	1,899	1,029	50%	54%
Governors State	763	726	340	45%	46%
Illinois State	3,452	2,708	472	14%	17%
Northeastern Illinois	974	893	306	31%	34%
Northern Illinois	3,189	3,134	1,179	37%	38%
Southern Illinois-Carbondale	4,461	4,052	1,603	36%	40%
Southern Illinois-Edwardsville	1,401	1,347	566	40%	42%
University of Illinois-Chicago	2,683	2,080	935	35%	45%
University of Illinois-Springfield	584	556	221	38%	40%
Univ. of Illinois-Urbana-Champaign	5,638	5,356	2,984	53%	56%
Western Illinois	2,053	1,991	824	40%	41%
TOTAL	28,106	25,556	10,655	38%	42%

The left-hand column of the tables show respondents' characteristics on the Baccalaureate Follow-Up Survey of the Class of 1997. The right-hand column shows the characteristics of all graduates of the Class of 1996-97 as reported in the *IBHE Data Book*, Revised, October, 1998.

Class of 1997, One Year after Graduation

RACE	Frequency	Valid Percent
Black	789	7.7%
Asian	633	6.1%
White	8,381	81.4%
Native American	28	0.3%
Hispanic	428	4.2%
Non-Resident	35	0.3%
Missing	378	
Total	10,672	100%

GENDER	Frequency	Valid Percent
Female	5,863	55.7
Male	4,657	44.3
Missing	152	
Total	10,672	

MAJOR	Frequency	Valid Percent
Agriculture	278	2.6%
Accounting	448	4.3%
Business	1,097	10.4%
Communication	306	2.9%
Computer Science	200	1.9%
Education	1,593	15.1%
Engineering	837	7.9%
Engineering Tech	258	2.4%
Nursing	252	2.4%
Health	421	4.0%
Liberal Arts-Hums	1,155	11.0%
Science-Math	798	7.6%
Social Science	1,426	13.5%
Fine Arts	309	2.9%
Interdisciplinary	73	0.7%
Other	1,080	10.3%
Missing	141	
TOTAL	10,672	100.0%

Class of 1996-97, *IBHE Data Book*

RACE
9.0%
6.5%
75.5%
0.3%
4.7%
2.5%
1.5%
100%

GENDER
54.9
45.1
0.0
100%

BACHELORS' DEGREES CONFERRED, 1996-1997
1.4%
(Combined with Business)
17.8%
3.4%
2.5%
10.9%
4.7%
2.0%
(Combined with Health)
7.7%
11.6%
7.8%
14.7%
4.5%
2.4%
8.6%
100.0%

Table B-1: Occupations of All Majors, Full-Time Employed*
Class of 1997, One Year Out

Job Fields	Majors							
	All	Agriculture	Accounting	Business	Communi-cation	Computer Science	Education	Engineering
Management	10.3%	21.1%	4.4%	21.3%	18.5%	0.6%	4.5%	4.4%
Business/Finance	13.8%	9.3%	90.5%	33.9%	11.3%		2.6%	0.6%
Computer/Math	8.2%	2.6%	2.1%	18.5%	1.7%	92.9%	1.5%	13.4%
Architecture/Engineering	9.5%	4.1%		0.3%		0.6%	0.7%	73.3%
Life/Physical/Social Sciences	2.9%	6.2%			0.4%	0.6%	0.2%	0.9%
Health	6.9%	1.6%		0.5%	0.4%		3.4%	0.1%
Community & Social Service	5.9%	1.0%		0.3%	0.8%		2.1%	0.4%
Legal	0.8%	0.5%		0.1%	0.8%		0.2%	0.1%
Education, Training, Library	15.7%	5.7%	0.3%	1.0%	2.5%	1.2%	68.1%	1.6%
Arts, Design, Entertainment, Sports, Media	3.9%	0.5%		0.8%	36.6%	0.6%	0.5%	
Sales	5.8%	13.9%	0.8%	11.8%	14.3%		1.2%	1.8%
Office and Administration	5.6%	6.7%	1.3%	7.9%	7.6%	1.2%	2.9%	0.3%
Protective Services	2.6%	1.6%		0.4%	0.4%	0.6%	1.2%	0.1%
Food Preparation and Serving	0.4%	0.5%		0.3%	1.3%		0.3%	
Building and Grounds Maintenance	0.4%	4.1%		0.2%			0.3%	
Personal Care	1.1%			0.5%	0.4%	0.6%	1.0%	
Farming, Fishing, Forestry	0.5%	17.0%						
Construction/Extractive	0.7%	1.6%	0.3%	0.3%			0.4%	0.4%
Installation, Maintenance Repair	0.6%	1.0%	0.3%	0.4%	0.8%	0.6%	1.1%	0.1%
Production	1.0%			0.6%	1.3%	0.6%	0.7%	0.3%
Transportation/Materials Moving	0.8%	0.5%	0.3%	0.6%	0.4%		0.4%	
Military	2.6%	0.5%		0.1%	0.4%		6.6%	2.1%
TOTAL (n = 7,765)	100.0%	100.0%	100.3%	99.8%	99.9%	100.1%	99.9%	99.9%

*Due to rounding, some columns may not sum exactly to 100%.

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Table B-1: Occupations of All Majors, Full-Time Employed (continued)[1]
Class of 1997, One Year Out

Job Fields	Majors								
	Engineering Tech	Nursing	Health	Liberal Arts/ Humanities	Science/ Math	Social Sciences	Fine Arts	Interdisciplinary	Other
Management	14.7%	2.6%	12.7%	13.7%	4.9%	11.1%	5.1%	19.6%	10.0%
Business/Finance	1.3%		4.8%	11.0%	4.7%	15.6%	4.1%	10.7%	4.4%
Computer/Math	6.5%		1.2%	5.3%	7.9%	5.5%	3.1%	26.8%	1.8%
Architecture/Engineering	38.5%		0.4%	1.1%	3.7%	0.8%	4.1%	7.1%	10.4%
Life/Physical/Social Sciences	0.4%		1.2%	0.7%	33.8%	4.0%	0.5%		0.9%
Health	0.4%	95.4%	49.6%	3.8%	12.4%	3.2%		7.1%	6.3%
Community & Social Service			5.6%	6.6%	1.6%	18.7%	2.0%	3.6%	21.5%
Legal		0.5%	2.0%	0.7%	0.2%	1.8%		3.6%	2.8%
Education, Training, Library	3.0%	1.0%	4.8%	13.7%	13.1%	9.7%	9.2%	1.8%	3.3%
Arts, Design, Entertainment, Sports, Media	0.4%			6.9%	1.2%	2.0%	51.0%		2.0%
Sales	2.6%		1.6%	10.4%	4.9%	8.1%	6.6%		5.3%
Office and Administration	1.7%		9.5%	11.0%	5.1%	7.2%	7.1%	10.7%	6.8%
Protective Services	0.4%		0.4%	4.5%	0.2%	2.9%	1.0%	1.8%	13.8%
Food Preparation and Serving				0.6%	0.2%	1.0%	0.5%		0.8%
Building and Grounds Maintenance	0.9%			0.4%	0.2%	0.3%			0.6%
Personal Care			1.6%	2.1%	0.2%	2.2%			2.7%
Farming, Fishing, Forestry					1.4%	0.2%			
Construction/Extractive	1.7%		0.4%	1.5%		1.2%	0.5%	3.6%	0.9%
Installation, Maintenance Repair	6.1%			0.2%	0.2%	0.6%			0.4%
Production	6.9%		0.8%	2.0%	1.4%	0.7%	4.1%		0.4%
Transportation/Materials Moving	0.4%			1.2%	0.9%	1.4%			3.0%
Military	13.9%	0.5%	3.6%	2.5%	1.6%	1.6%	1.0%	3.6%	2.1%
TOTAL (n = 7,765)	99.8%	100.0%	100.2%	99.9%	99.8%	99.8%	99.9%	100.0%	100.2%

*Due to rounding, some columns may not sum exactly to 100%.